1131-13-143 **Louiza Fouil***, Department of Mathematical Sciences, New Mexico State University, Las Cruces, NM 88003, and **Bruce Olberding**. *Reductions of ideals over a local Noetherian ring with finite residue field.* Preliminary report.

Let R be a local Noetherian ring with residue field k and let I be an ideal of R. We say that $J \subset I$ is a reduction of I if there exists an integer $r > 0$ such that $I^{r+1} = JI^r$. When k is an infinite field, I has either infinitely many proper reductions or I is basic, i.e. I is the only reduction of itself. When k is finite that is not necessarily the case. We will discusss the existence or lack of proper reductions and the number of generators needed for a reduction in the case k is a finite field. This is joint work with Bruce Olberding. (Received July 11, 2017)